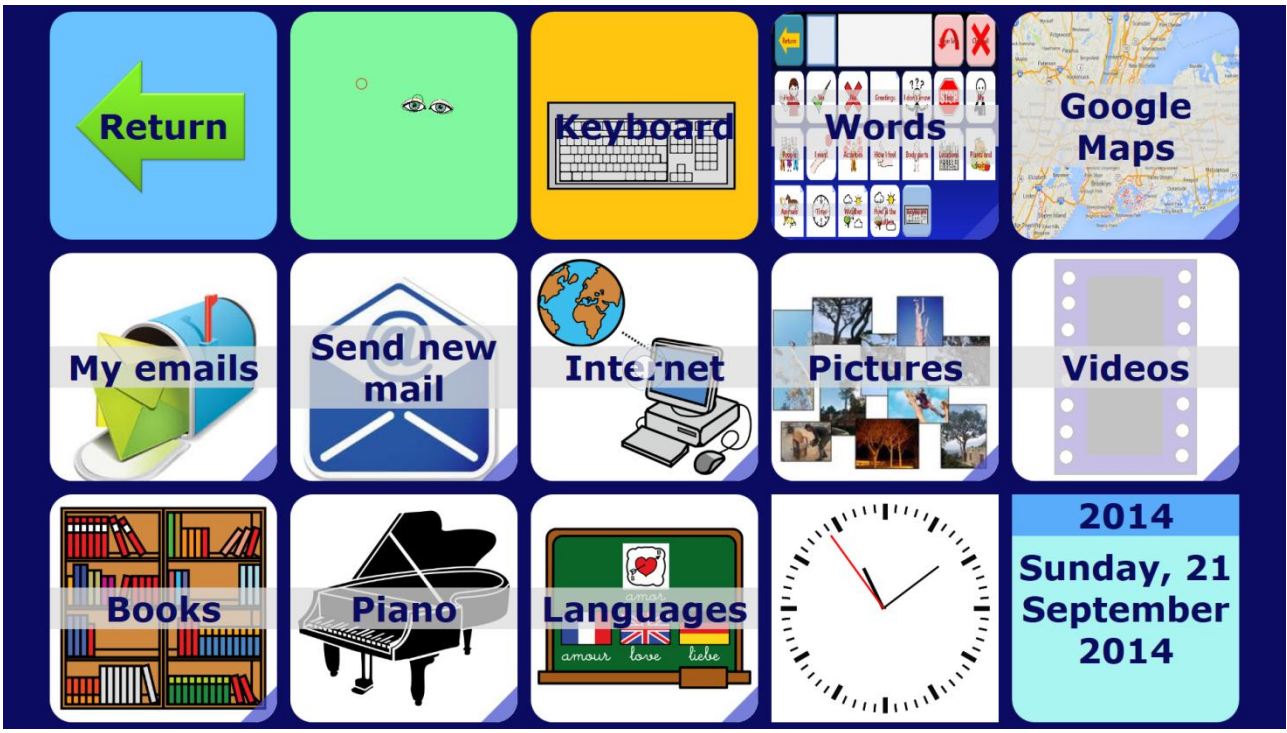
GAZESPEAKER MANUAL



21/09/2014

Speaking with the eyes

Version 1.0.0

Gazespeaker Manual

SPEAKING WITH THE EYES

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INTRODUCTION

Gazespeaker is an open source software specifically optimized for eye tracking. Connected with an eye tracker, you can create easily a fully functional eye tracking system for people with disabilities or in specific cases for education.

Gazespeaker.org is a non profit and informal online community. Our goal is to develop solutions for people with disabilities in order to improve their daily life and most importantly to improve their capabilities to interact with others and with their environment.

We believe that technology will provide new tools to compensate these disabilities and that research and development in this area will benefit not only for people with disabilities but will also benefit to all of us.

If you are interested to join our community, to participate in the development and testing of code or grid contents, we will be happy to have you joining the community.

INSTALLATION

Step 1

Install the eye tracker program depending on your platform (The Eye Tribe or Tobii Eye X)

Step 2

Download the Gazespeaker program (Gazepeaker-setup-….exe)

Run the setup module.

When the installation is complete, you will have an icon of the Gazespeaker program on your desktop.

Step 3

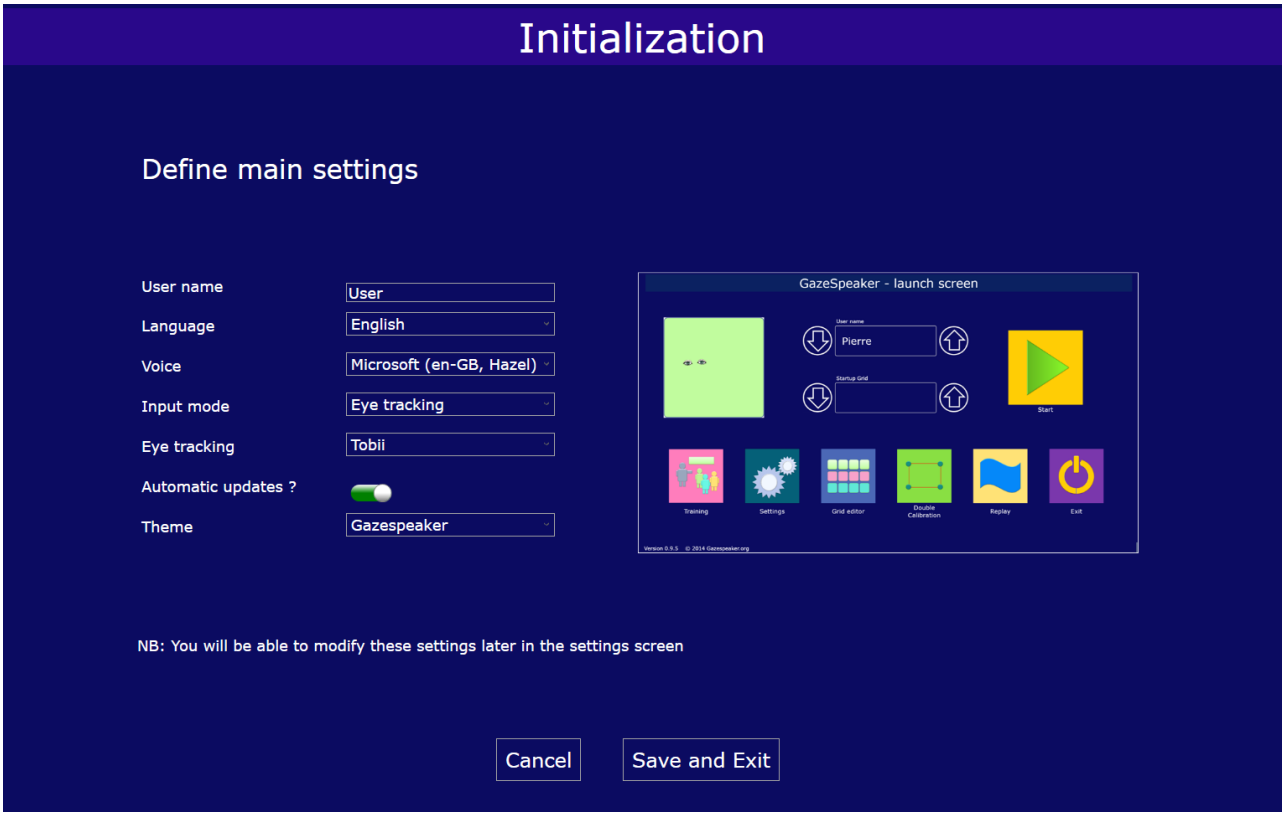
Click on it to run the Gazespeaker program: during the first run of the program, you will have to set the main settings (name, language, voice, input mode, system, theme, automatic updates).

INITIALIZATION

When you first launch the Gazespeaker program, the initialization screen is displayed: you will have to set the main settings (name, language, voice, input mode, system, theme, automatic updates).

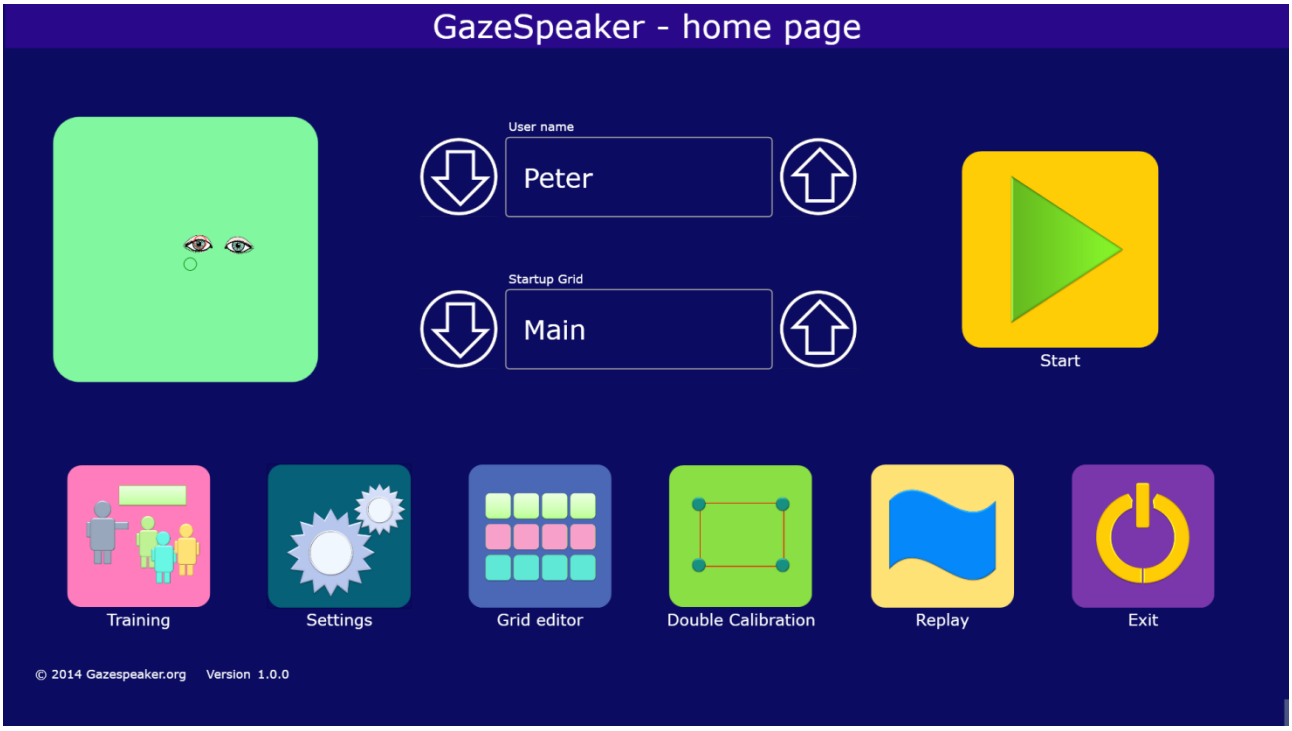
Please see the settings section for more details on these settings

You can modify these settings in a later stage with the settings button on the startup page.



HOME PAGE

When you start the program, the home page is displayed:



You can launch immediately the program: press the button start, or select the grid you would like to launch instead. The main grid has been configured for level 4 in order to present the various possibilities. You can instead launch the level 1 / yes-No grid if you want to use it with a child with specific disabilities instead.

Important note: You don't need to use the Gazespeaker calibration - button Calibration - at the beginning, but you need to calibrate the eye tracker with the program distributed with the eye tracker (The Eye Tribe UI in the case of the Eye Tribe tracker).

In a grid, depending on the input mode selected:

1. Eye tracking mode: you just need to look at the cell you want to activate
2. Mouse movement: position the mouse cursor on the cell you want to activate
3. Mouse click: click on the cell

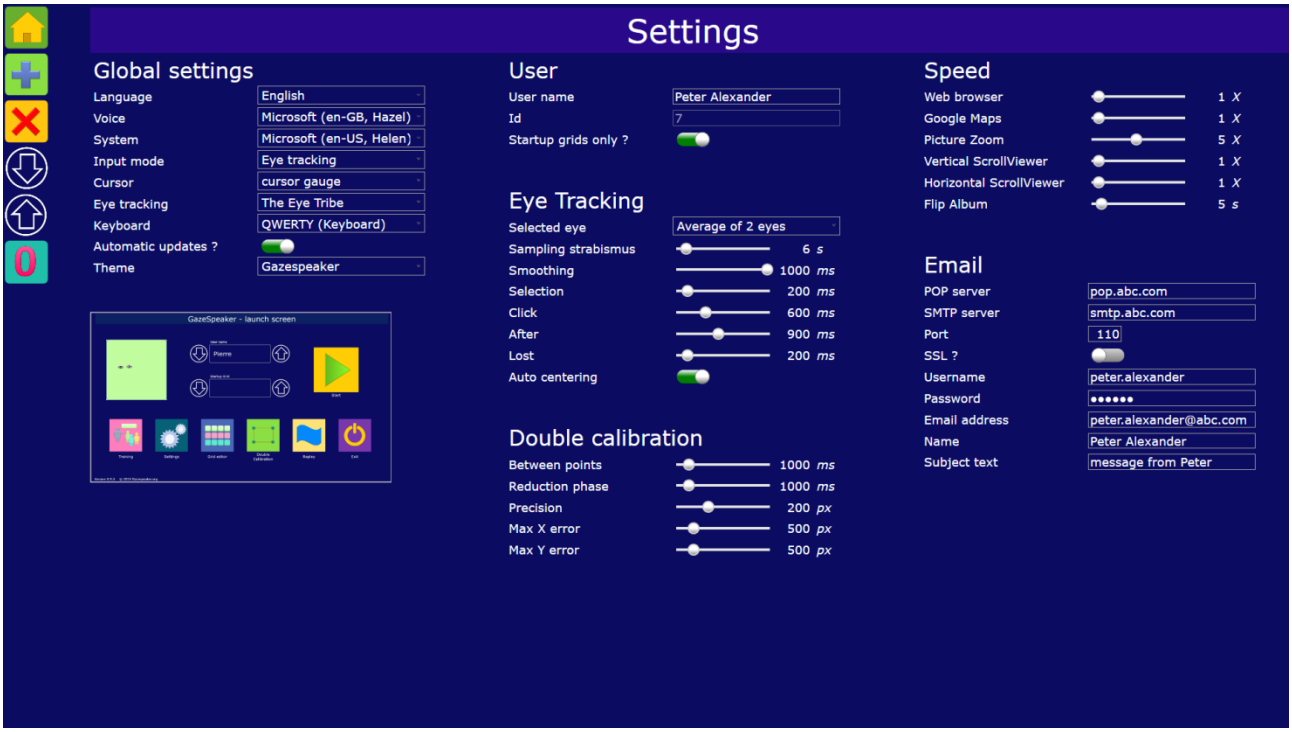
You can use the mouse click (or touch with a tablet) even in the eye tracking or mouse movement mode.

To exit a grid, you have the following solutions:

1. Activate or click the return cell (if there is one in the grid).
2. Press Space keys on the keyboard
3. Click on the menu bar in the top left (it is visible when you move the mouse cursor to the top left area of the screen)
4. Double click anywhere in the screen outside a cell

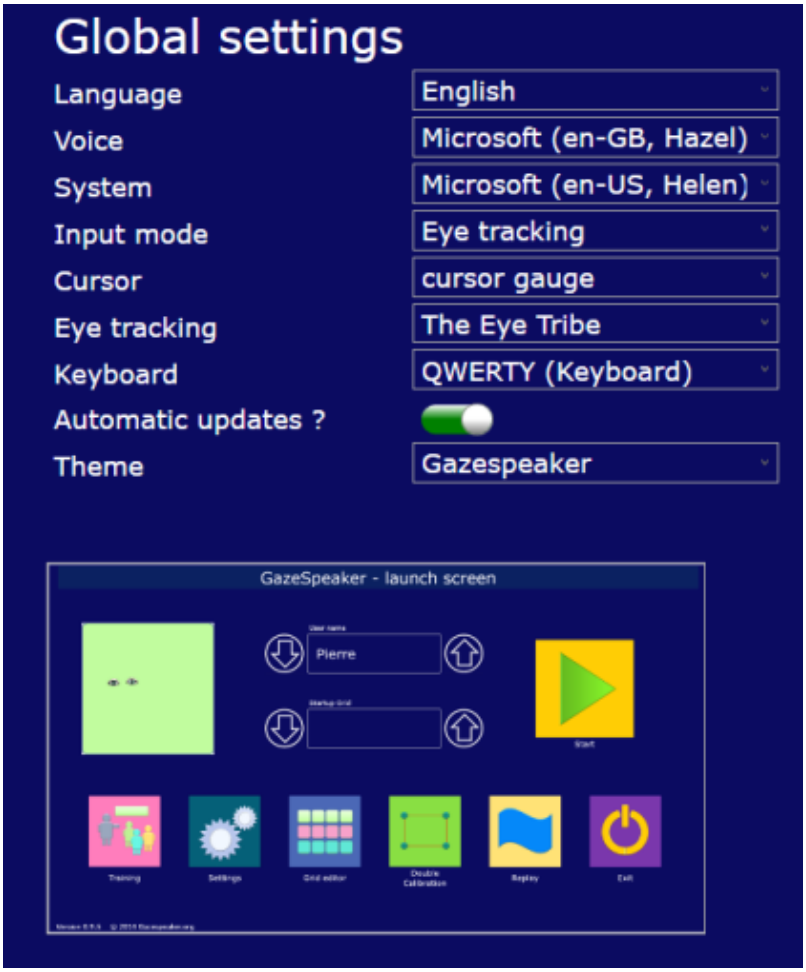
SETTINGS

To define specific settings, click on the Settings button on the startup screen.



Global settings

Global settings are applied to all users. They must be adapted to your specific configuration and according to your needs and preferences.



Language: Language to speak words and display texts. Gazespeaker is available in 28 languages:

- English, French, German, Spanish, Italian, Portuguese, Danish, Finnish, Japanese, Korean, Dutch, Norwegian, Polish, Russian, Swedish, Chinese (simplified)
- Arabic, Czech, Greek, Hindi, Hungarian, Indonesian, Icelandic, Hebrew, Romanian, Slovak, Thai, Turkish

Voice: Voice used to pronounce the words in the grids. The list of voices is automatically selected on the list of voices installed on your computer. If the list is empty for the selected language, you should install the voice before:

If the voice is available in Microsoft Speech platform, you can download the voice on our web site or directly on Microsoft web site:

- English, French, German, Spanish, Italian, Portuguese, Danish, Finnish, Japanese, Korean, Dutch, Norwegian, Polish, Russian, Swedish, Chinese (simplified)

If the voice isn't available in your language, it can be purchased for a limited cost in specialized vendors such as Acapella, Nuance or ATT:

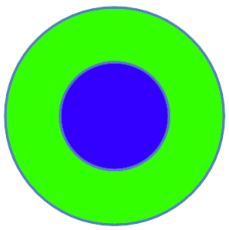
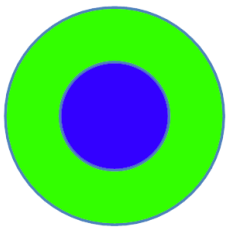
- Arabic, Czech, Greek, Hindi, Hungarian, Indonesian, Icelandic, Hebrew, Romanian, Slovak, Thai, Turkish

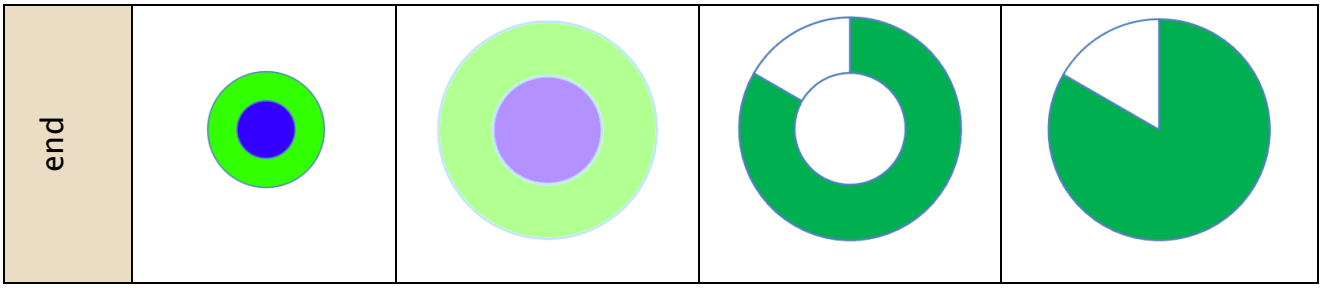
Gazespeaker is now compatible with Microsoft Speech voices and SAPI 5 voices.

Input mode: 3 options

1. Mouse click
2. Mouse movement: this option can be used for head tracking systems (Camera Mouse, SmartNav) or eye tracker with mouse cursor emulation.
3. Eye Tracking: for eye trackers supported natively by the Gazespeaker (Tobii, The Eye Tribe and ITU Gazetracker).

Cursor: animation used to show activation before click, for input modes = mouse movement or eye tracker (irrelevant for mouse click)

	Cursor size	Cursor transparency	Cursor gauge	Cursor Clock
beginning				



Eye tracking:

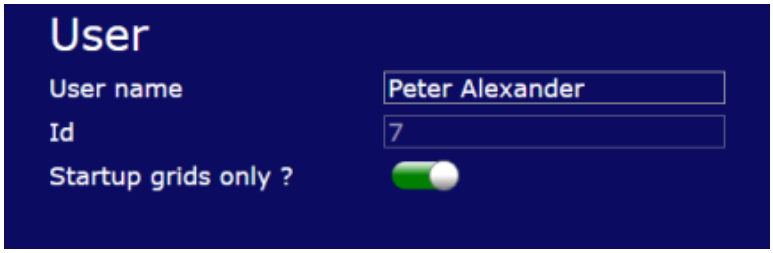
1. Tobii (Eye X, REX)
2. The Eye Tribe
3. ITU Gazetracker

Keyboard: keyboard grid used for predictive keyboard. It is defined by default depending on the language. You may however indicate another keyboard or you can create your own keyboard (*see section: grid editor*).

Automatic updates: recommended option is yes; when selected, Gazespeaker will automatically check for new updates every time you launch the program: if an update is available, it will propose you to download and install it for you (you can postpone or refuse to install the updates anyway).

Theme: theme used for Gazespeaker in the screen and the grids. Currently there are 5 themes pre-installed with the program (Gazespeaker, metro dark, metro green, metro light, picto).

User settings

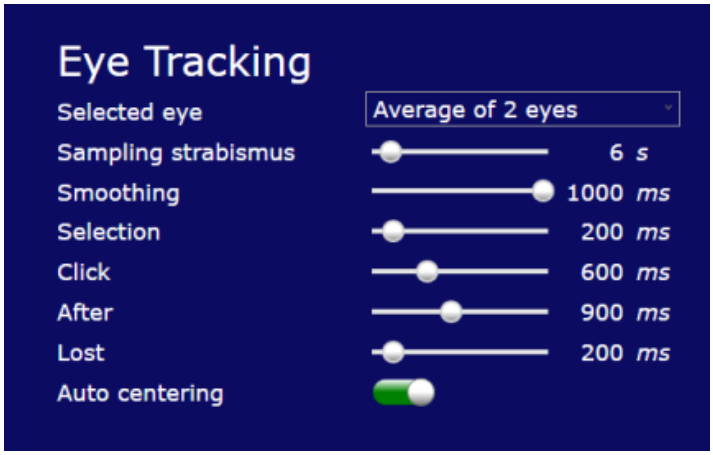


User Name: Name to save personal data and calibration. This is useful when you have multiple people using the system or when you want to store specific calibration for a patient while testing or calibrating also with a parent or caregiver.

Id: user id (for information only)

Startup grids only ? if selected, only grids marked as “startup grids” are visible in the home page.

Eye Tracking

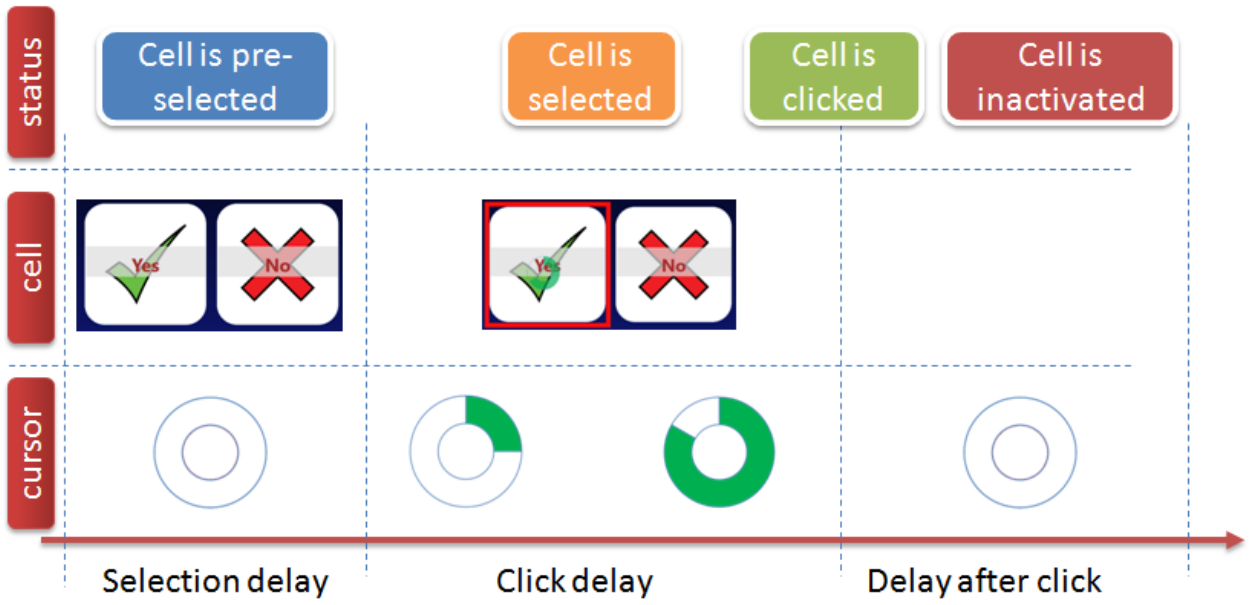


This section is only necessary if you have selected input mode = eye tracker. It will enable you to fine tune the eye tracking mode in Gazespeaker.

Selected eye: it is the eye to be used in case of strabismus (Left eye / Right eye), alternating (in case of alternating strabismus), otherwise use both eyes.

Delays for the eye tracking activation and click can be defined depending on age and skills (longer delays for young people or in case of attention deficits, shorter delays for intellectually agile people).

The table below shows the 3 different timings adjustable in Gazespeaker:

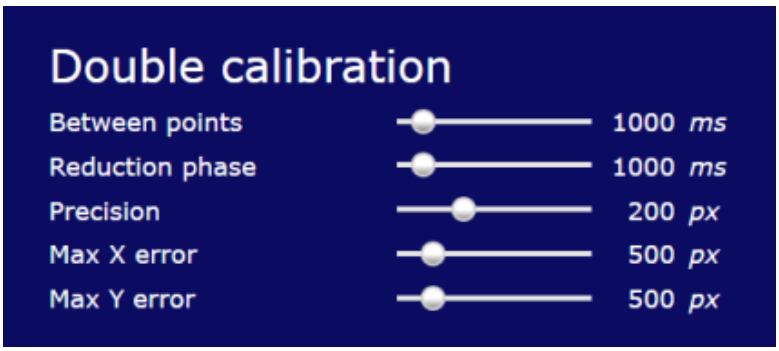


Selection delay: delay necessary to look into a cell before it is selected (red rectangle activated around the cell)

Activation delay: delay necessary to look at the cell before it is clicked; during this period, the cursor is animated to show the time remaining before click. This effect is very useful when we want to avoid clicking inadvertently on a cell.

Delay after click: period when the cell cannot be activated again, to avoid clicking inadvertently on the same cell.

Calibration



The following settings are used only for the calibration with the Gazespeaker.

Between points: during the calibration, multiple targets are shown (between 1 and 25, depending on the selection in the calibration screen). The moving duration is the time

to move between 2 targets (the shorter the delay, the quicker and the harder the calibration will be).

Reduction phase: The duration of the reduction phase is the time required on a target for the animation to decrease before increasing and moving again to the next target (the shorter the delay, the quicker and the harder the calibration will be).

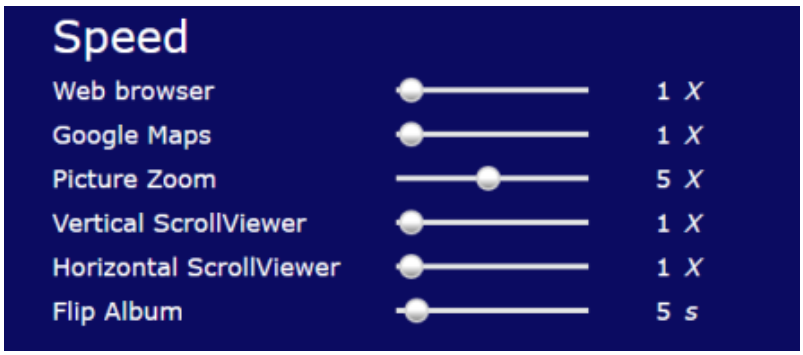
The following settings are used to define the precision and quality of the calibration, and the program will automatically perform a calibration on the points where the quality is not in the limits defined (during the calibration, multiple samples are recorded at one target).

Precision: maximum standard deviation calculated on the sample. If the person didn't focus correctly on the target, the program will automatically redo the calibration on this point.

Max X error: this is the maximum distance on horizontal axis allowed with the target. If the person looked somewhere else on the screen instead of looking at the target, the program will automatically redo the calibration on this point.

Max Y error: idem for vertical axis.

Speed



These settings can define the speed in scrolling with the eyes in the various types of grids. The speed is defined in multiplying factor compared to default: for example, 5X means 5 times quicker than default.

Web browser: internet browser

Google maps: maps

Picture zoom: picture view with zoom

Vertical scrollviewer: vertical picture viewer

Horizontal scrollviewer: vertical picture viewer

Flip album: in a picture album, this is the speed in seconds to move automatically to the next image (diaporama).

Email

These settings are required to receive and send emails with the Gazespeaker (level advanced communication). Please indicate the settings of the mailbox you want to connect with the Gazespeaker. Settings are usually defined by your Internet Service Provider.

POP server: POP server used to receive emails, as defined by your Internet Service Provider (usually in the form of pop.xxx.com where xxx.com is the domain name of your ISP)

SMTP server: SMTP server used to send emails, as defined by your Internet Service Provider (usually in the form of smtp.xxx.com where xxx.com is the domain name of your ISP)

Port: port of the POP server used to receive emails, as defined by your Internet Service Provider (usually 110)

SSL: SSL encryption of the POP server used to receive emails, as defined by your Internet Service Provider (usually no)

Username: username to connect to your mailbox, as defined by your Internet Service Provider (usually firstname.lastname).

Password: password to connect to your mailbox

Email address: full email address (usually firstname.lastname@xxx.com)

Name: your name, which will be visible in the mail you send with the Gazepeaker.

Subject text: subject to be added in the mail you send with the Gazespeaker (you will not have to enter subjects in your mails afterwards in Gazespeaker, only the content of the mail both in new mails or in replies)

Button bar

The button bar is permanently displayed at the top left corner, to activate various actions on the list of users:

button	action
	Exit the settings screen and return to the home page
	Add a new user (settings are copied from current user)
	Delete the user displayed on the screen: you will need to confirm the deletion
	Moves to next user

	Moves to previous user
	Reset settings of the current user to default.

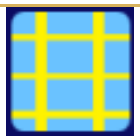
TRAINING

To enter into the training module, click on the Training button on the startup screen.

You should use this module during the first steps of a child or patient with the eye tracker in order to test his capabilities and difficulties. The button bar is displayed when entering in the screen and is hidden afterwards automatically when you move the cursor out of the bar. It is displayed again when you move the cursor in the area of the bar.

The buttons in the bar have the following functions:

button	action
	Exit the training screen and return to the home page

	Hide / display the grid
	Display / hide an object (cat, butterfly, …) on the screen: every time you click on this button, it will select the next object
	Display / hide an moving object (cat, butterfly, …) where the eyes are looking: every time you click on this button, it will select the next object
	Display / hide growing colorful bubbles where the eyes are looking. This training session is useful to get used to the effects of looking somewhere on the screen.
	Display / hide colorful paint dots where the eyes are looking. This training session is useful to get used to the effects of looking somewhere on the screen.
	Display / hide a picture on the screen: every time you click on this button, it will select the next picture. This training session is useful to check where a patient is looking (for attention deficit disorders for example).
	Display / hide a video on the screen: every time you click on this button, it will select the next picture. This training session is useful to check where a patient is looking (for attention deficit disorders for example).
	Records / Display / Hide a heatmap session to display where the patient was looking.

CALIBRATION

To enter into the calibration module, click on the Calibration button on the startup screen.

The calibration in Gazespeaker is superposed to the calibration of the eye tracker. The reset button cancels the double calibration and the native calibration of the eye tracker is used again.

This is useful to perform simpler calibration (1 to 5 calibration points) than standard one of the eye tracker (usually 9 to 25 target points). It is also possible to use animations, objects or videos in the case of children or attention deficit disorders.

The button bar is displayed when entering in the screen and is hidden afterwards automatically when you move the cursor out of the bar. It is displayed again when you move the cursor in the area of the bar.

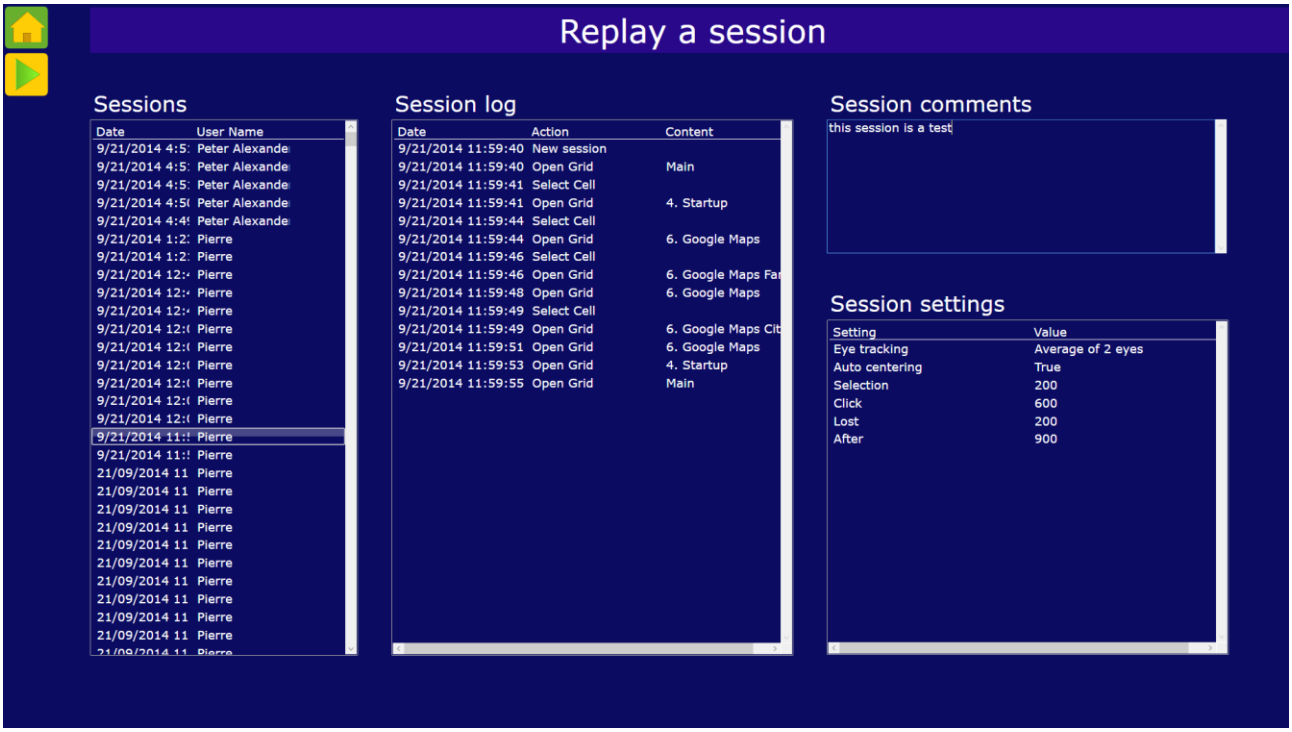
The buttons in the bar have the following functions:

button	action

	Exit the calibration screen and return to startup screen
	Launch the calibration (on the number of points and animation effect selected with the other buttons below)
	Resets to zero the calibration within Gazespeaker: uses native calibration of the tracker
	Selects the number of points of the calibration (click several times to select the desired value).
	Selects the animation ball for the calibration (click several times to select the desired ball).
	Selects the animation object for the calibration (click several times to select the desired object).
	Selects the video for the calibration (click several times to select the desired video).

REPLAY

Sessions are automatically recorded and can be reviewed and analyzed later after the session. This is very useful for caregivers in order to analyze carefully difficulties and progress, and to organize future sessions.



The screen is composed of the following sections:

Sessions: list of sessions (the most recent ones are shown first). You can select a session simply by clicking on it.

Session log: displays the different actions (grids open, activated cells, …)

Session comments: you can enter freely your comments on the session for your records

Session settings: display settings defined at the time of the session (can be useful when you try different settings in various sessions).

At the top of the screen, the button bar is composed of 2 buttons:

button	action

	Exit the replay screen and return to home page
	Launch replay of the selected session.

GRID EDITOR

To enter into grid editor, click on the Grid editor button on the startup screen.

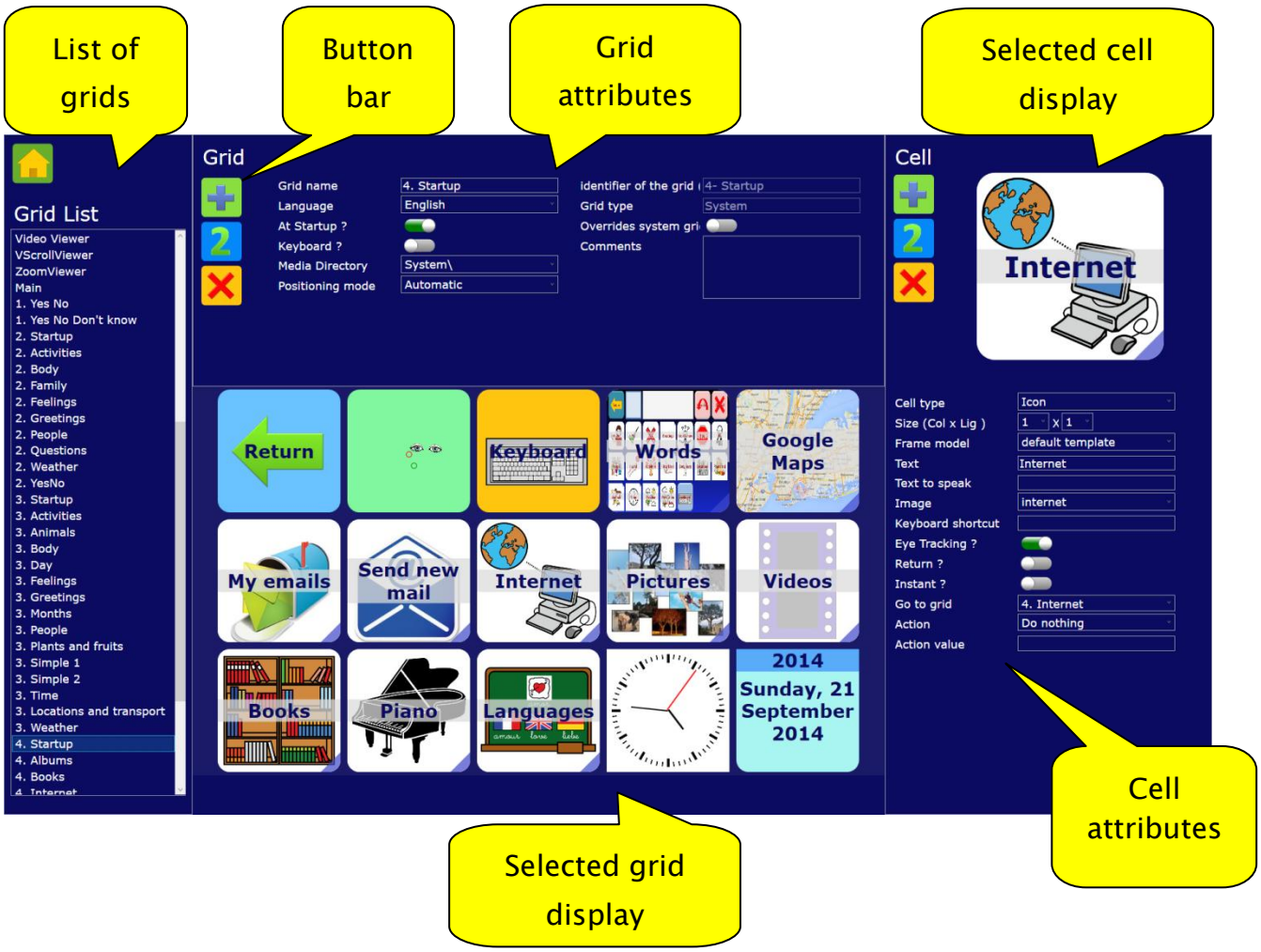
You can modify or create your own grids. Your modifications are automatically saved.

The grid editor is a visual editor: all modifications are immediately displayed. You can visualize in real time the grid you are creating or modifying, and the same for the cell you are working on.

You can modify the position of cells simply with a drag and drop of the cell you want to move.

The screen is divided into 6 zones:

1. The button bars, to create/duplicate or delete grids and cells
2. The grid list to select the grid you want to display or modify
3. The grid attributes of the selected grid
4. The display of the selected grid (central zone)
5. The display of the selected cell (top right)
6. The attributes of the selected cell

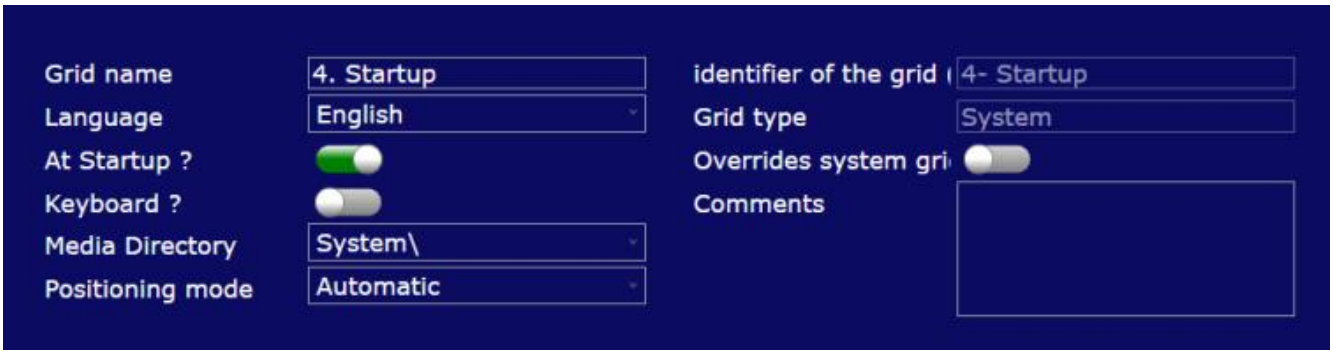


List of grids

In the list of grids, you select the grid you want to display or modify.

Grid attributes

In this zone, you define the common characteristics of the selected grid.



Grid name: it is the name of the grid displayed in the grid list (or in the combo box in the startup screen to select the grid to be launched).

Language: language of the grid. It can be a mono language (English, French, …), multi-language (each cell will have a translation in every language supported in the Gazespeaker) or the default language (language selected by the user). All our AAC grids are multi-language so they can be used in different languages.

At startup ? if selected, the grid is visible in the home page when the setting "startup grids only" is selected (default)

Keyboard ? if selected, this grid can be selected as the keyboard in the settings keyboard

Media Directory: directory where pictures and icons are stored (path after Gazespeaker data/grids directory)

Positioning mode: 3 modes are available in Gazespeaker

1. Automatic: in this mode, the size of the grid and the position of the cells are calculated automatically by the program in order to maximize the size of the cells and to fill the screen. You only have to order the cells by drag and drop if you need so.
2. Fixed size / Automatic positioning: the size of the screen is fixed (you have to enter the number of columns and lines) and the program automatically performs the positioning of the cells. You only have to order the cells by drag and drop if you need so.
3. Fixed size / manual positioning: the size of the screen is fixed (you have to enter the number of columns and lines) and position the cells by drag and drop.

Columns: in fixed size mode only, horizontal size of the grid in number of columns.

Lines: in fixed size mode only, vertical size of the grid in number of lines.

Id: name of the file of the grid (xml file in the grids directory). For information only.

Grid type: system or user

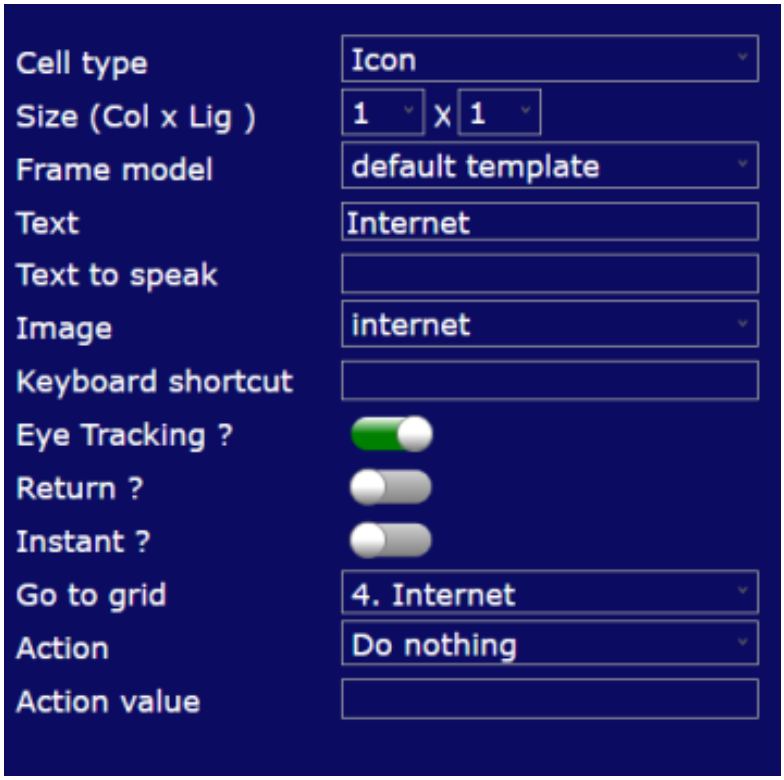
Comment: description of the grid (if need be).

Button bar

button	action
	Create a new grid. The new grid is added at the end of the list of grids.
	Duplicate the current grid with the same cells and attributes. This is useful to quickly create new grids from an existing grid or to try modifications on a grid without risking adverse effects on the first grid.
	Delete the current grid: a warning is message is displayed asking for confirmation. **If you delete a grid, you will not be able to reverse this deletion.**

Cell attributes

In this zone, you define the characteristics of the selected cell:



Language: only for multi-language grids. This field is to used to enter the texts in the different languages: first select language, enter the texts in English, then select French and enter the texts in French, and so on…

Cell type: type of the cell

The different cell types are the following:

- Text: cell with a text, without any picture or icon
- Sentence:
- Icon: cell with icon and text in the center
- Picture: cell with picture and text at the bottom
- Action button
- Switch button
- Key: key in a keyboard (1 letter)
- Text Viewer: display the text entered in Gazespeaker
- Predictive key: display a word in a predictive keyboard (based on the letter entered in a key)
- Pattern: letters entered in key, used to select words in the predictive keyboard
- Clear last letter: clears the pattern when clicked
- ClearLast: clears last word in WriterViewer
- ClearAll: clears last word in WriterViewer
- Web browser: web browser
- VideoViewer: video viewer
- PictureViewer: picture viewer
- Empty: empty cell
- Return: returns to the preceding grid when clicked
- Home: returns to the initial grid when clicked
- Exit: returns to startup screen when clicked
- EyeTracker: display the position of the eyes in the eye tracking mode
- Keyboard: displays the keyboard grid when clicked
- MailViewer: displays the email received
- Mapviewer: displays google map
- Vertical scroll viewer: display a list of pictures vertically

- Horizontal scroll views: a list of pictures horizontally
- Clock: clock
- Calendar: calendar

The following attributes vary depending on cell type and grid positioning mode:

Size (columns): horizontal size of the cell in number of columns

Size (lines): vertical size of the cell in number of lines

Position (column): horizontal position of the cell in number of columns from the left, in fixed manual mode only

Position (line): horizontal position of the cell in number of columns from the left, in fixed manual mode only

Frame model: type of frame of the cell (background image)

Text: text to be displayed on the cell

Text to speak: text to be spoken and included in Textwriter when clicked

Keyboard shortcut (if cell type = key): shortcut in keyboard to activate this cell

Image: icon or image to be displayed in the cell

Eye Tracking? If this checkbox is not checked, the cell will not be selectable in eye tracking mode, only with the mouse (to create buttons or field only accessible for the caregiver or parent)

Return? If this checkbox is checked, when this cell is clicked or activated by the eye tracker, the preceding grid will be displayed (same effect as a return type cell)

Instant? If this checkbox is checked, it will be activated immediately when looked at in eye tracking mode, without the delays of activation and click (useful for immediate actions).

Go to grid: when the cell is clicked or activated, the grid defined in the “go to grid” attribute will be opened (useful to organize grids and define cells which open a new grid when selected)

Action: action or program executed when the cell is clicked or activated. The list of possible actions are (please note that some actions required a value defined in the "action value" attribute):

- Backspace: clears last word
- MidiNote: plays midi note (note defined in action value)
- MidiInstr: plays midi instrument (instrument defined in action value)
- MailPrec: moves to preceding mail
- MailNext: moves to following mai
- MailTo: defines email address to send a mail
- MailSend: sends the mail with the text entered and the email address defined in mailto
- MailSendReply: idem for a reply
- MailReset: go to beginning of the list of mails
- SetFile: defines the location and name of the html file to be viewed in web brower
- SetURL: defines the URL of the page to be viewed in web brower
- SetMediaDir: defines location of media (pictures, music or video) to be displayed in video viewer or picture viewer
- NextVideo: change to next video in the list of videos in MediaDir
- PreviousVideo: change to previous video in the list of videos in MediaDir
- NextImage: change to next picture in the list of pictures in MediaDir
- PreviousImage: change to next picture in the list of pictures in MediaDir
- NextMusic: change to next music in the list of mp3 in MediaDir
- PreviousMusic: change to next music in the list of mp3 in MediaDir
- SizeIncrease: increase size of text in web browser
- SizeDecrease: decreases size of text in web browser

Action value: value to be executed with the action

Button bar

button	action

	Create a new cell in the grid. The new cell is added at the end of the cells of the current grid.
	Duplicate the current cell with the same attributes.
	Delete the current cell: a warning is message is displayed asking for confirmation. **If you delete a cell, you will not be able to reverse this deletion.**

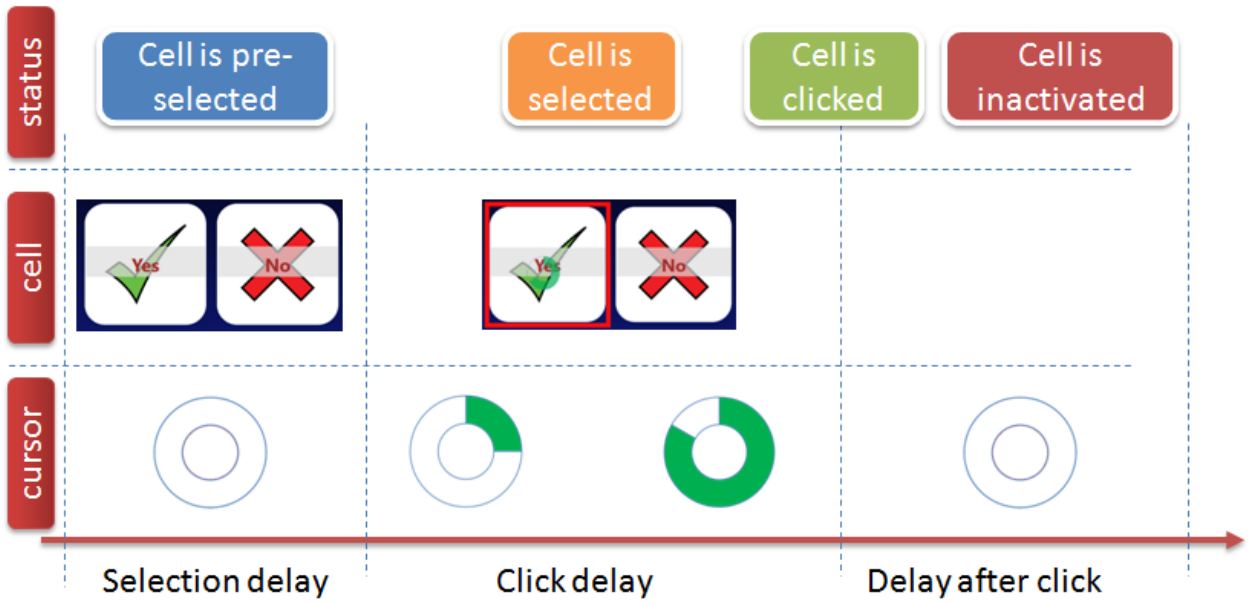
DISABILITIES

We have included in the Gazespeaker solution many features for people with disabilities:

Symptom	Solution in Gazespeaker
attention deficit	selection delays and double calibration with a video
Children	calibration objects and training module
Strabismus	selection of the director eye
communication	AAC grids

Adjustable selection delays

The duration of pre-selection, the duration of selection before click, and finally the duration of inactivation after click, all these timings are adjustable. When using the Gazespeaker for the first time, it is easier to use longer delays in order to give an ample time to select and activate (but it takes longer to write sentences of course).



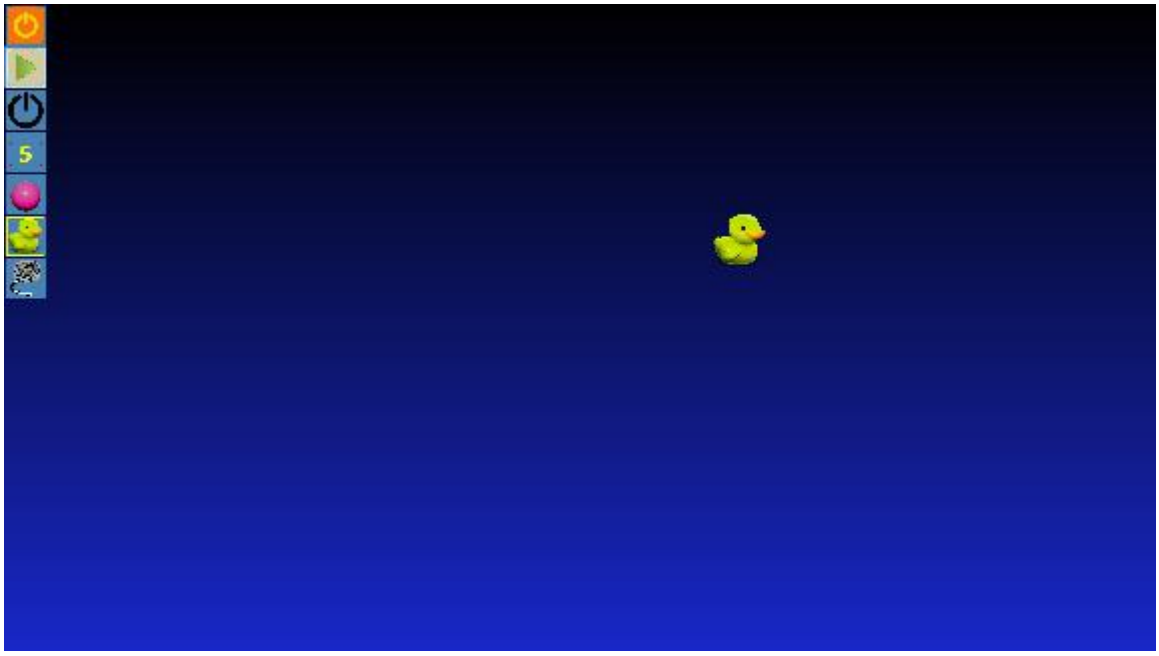
Director eye

You can define the director eye for the eye tracking: this is useful in case of strabismus because there is usually one eye (director eye) looking to the screen and the other eye wandering in other directions. With this feature, Gazespeaker will only use the gaze of the director eye.

Multiple calibration

This feature is particularly useful in the case of young children or in some conditions where standard calibration with the eye racket is too difficult.

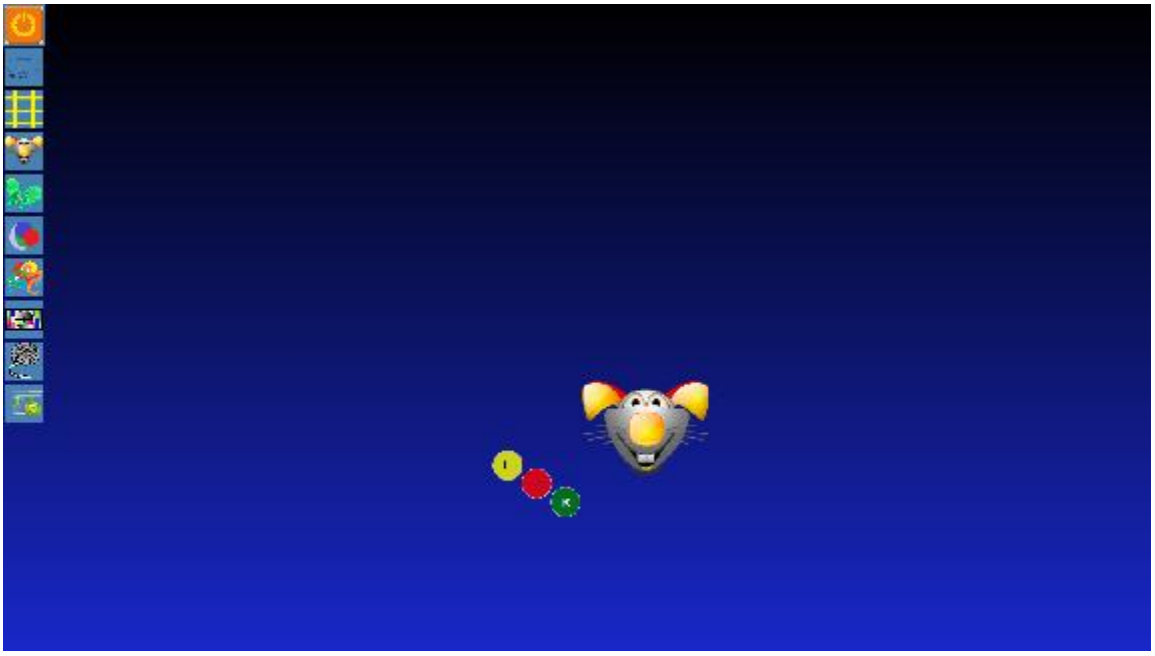
First, a parent or an adult calibrates the eye tracker with his own eyes, then in Gazespeaker the child calibrates with the specific Gazespeaker calibration: as the eye tracker has already been calibrated, in Gazespeaker the calibration is very simple at the beginning (you can calibrate even with a single point: this allows to use immediately the grids with 2 or 6 cells).



Moreover the calibration in Gazespeaker uses various visual objects (balls, animals …) and even a moving video. Calibration with a video is a very powerful solution for children with attention deficits.

Finally, the double calibration (one by the trainer with good precision on the eye tracker plus one simple directly in Gazespeaker) is very convenient to avoid recalibration between different sessions. Indeed the calibration in Gazespeaker is stored in the system (stored under the username defined in settings) . Only the calibration of the eye tracker may be necessary between sessions (e.g. currently with

the Eye Tribe tracker it is necessary to recalibrate when the system has been restarted).



At the beginning, with a child or in specific conditions such as autism and Rett syndrome, you can visualize where the different eyes are looking with 3 moving circles representing where the eyes are looking. You can use animations to see where the person is looking at, and you can verify the precision of the calibration (mainly if you performed calibration in Gazespeaker with only one point).

AAC grids with multiple levels

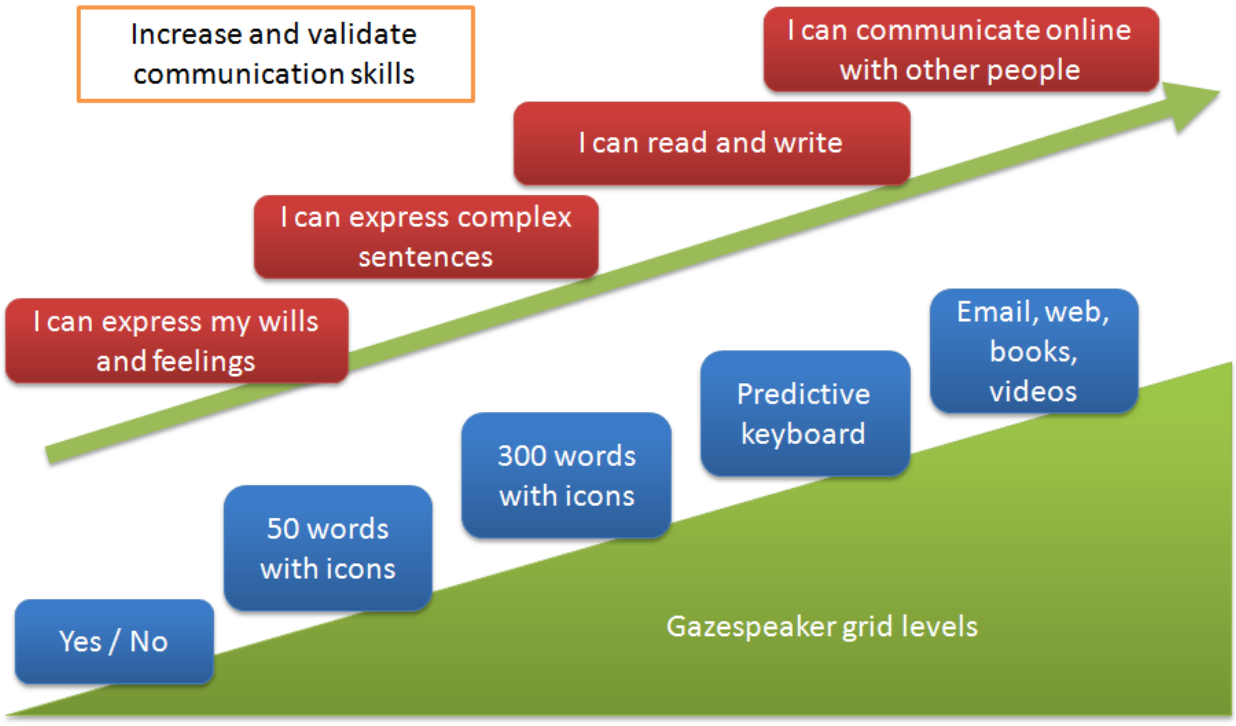
We have also included multiple grids with various levels, depending on age and disability.

COMMUNICATION

Skills ladder

We designed a set of grids for the Gazespeaker specifically adapted to age and skills.

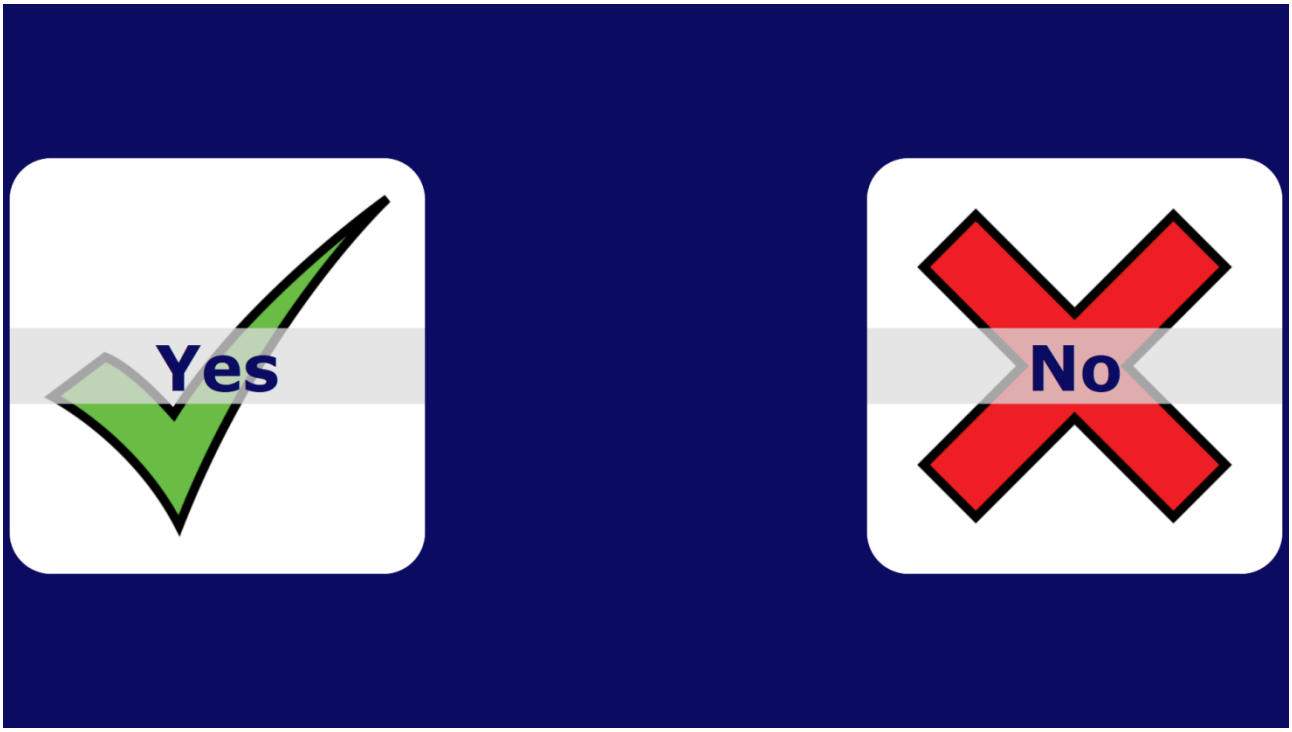
It is important to use the grids with levels of progressive difficulty in order to master the techniques of the eye tracking software.


Increase and validate communication skills
I can communicate online with other people
I can read and write
I can express complex sentences
I can express my wills and feelings
Email, web, books, videos
Predictive keyboard
300 words with icons
50 words with icons
Yes / No
Gazespeaker grid levels

Level 1: YES - NO

This grid is very simple and has only 2 possibilities : Yes or No

However, it is very convenient to start communication with children or with people with severe disabilities, because it allows independent communication with questions and answers.



Level 2: 6 cells grids

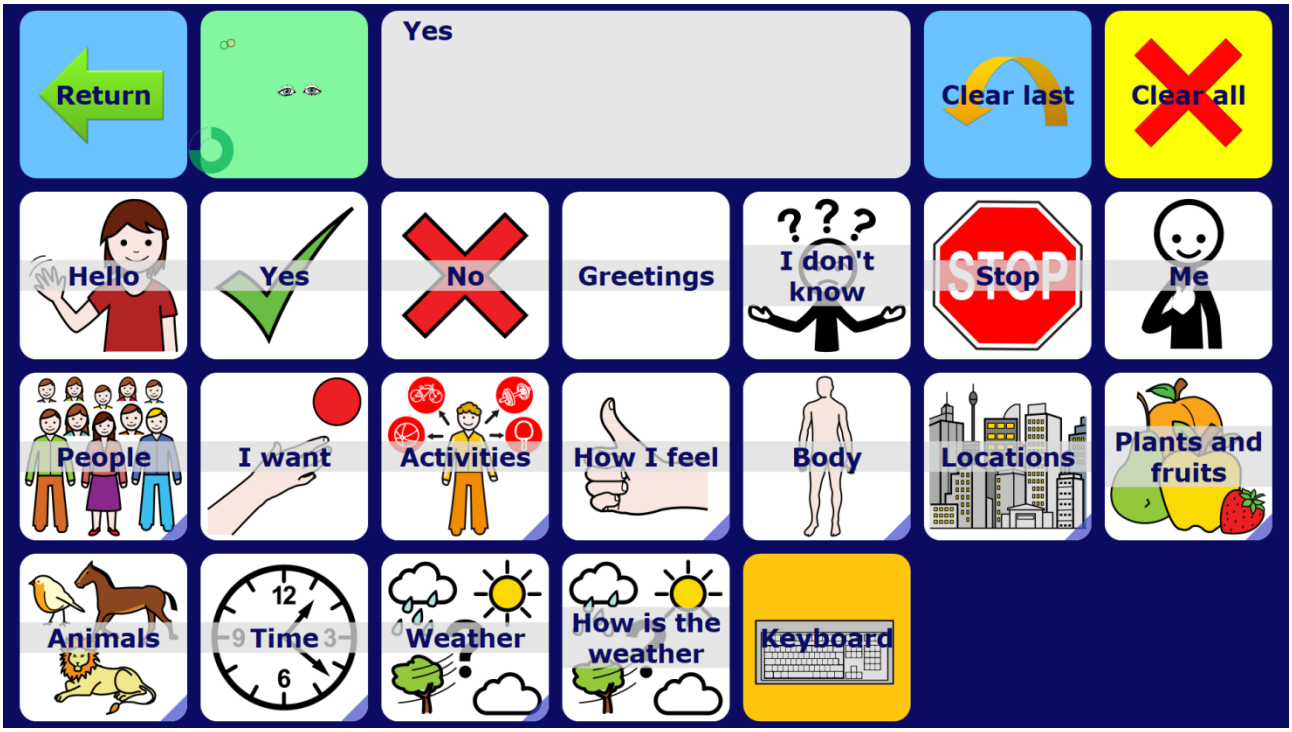
With the 6 cells grids, it is possible to express various situations, because with 6 cells, we can generate at least 50 different words (choice of a 6 categories then grids with 6 possibilities).

The size of these cells are big enough to be used without any calibration (e.g. when using the calibration of the parent).

Level 3: 28 cells grids

At this level, it is possible to express multiple words in various situations. We have also added the predictive keyboard cell at the bottom of the grid.

This set of 15 x 28-cells grids represents a vocabulary of around 200 words, which is enough to communicate at the age of 5 to 6 years old. For people with disabilities, it is a significant step, because the complexity of the grid and the size of the cells represents a big challenge.



Level 5: predictive keyboard

We have developed this predictive keyboard with advanced keyboard techniques found in smartphones.

The main advantage of this keyboard are :

1. Integrated vocabulary of 50 000 words in every language (English and French; we plan to add other languages in the months to come).
2. Adaptative: the words used frequently are proposed first, and the sequences of words are proposed automatically (even without typing the first letter !)
3. The main difficulty of this keyboard is the size of the keys: a good calibration is required to avoid errors (clicking on the wrong key).

Please note that you can easily modify the keyboard with the integrated grid editor.

Level 5 : music, videos, reading

We have included various activities in the current version of Gazespeaker:

- web browsing
- book reading
- picture albums
- listing music
- viewing videos

Level 6: online communication

It is possible to receive and send emails very easily with Gazespeaker.

CREDITS

Icons used in the grids of Gazespeaker are provided by ARASAAC (Aragonese Portal of Augmentative and Alternative Communication, http://www.catedu.es/arasaac)

Frequency list are provided by InvokeIT (http://invokeit.wordpress.com/frequency-word-lists)

CHANGE LOG

Version 1.0.0

- Support of 28 languages and 16 Microsoft voices (Gazespeaker will be installed with dozens of languages), and SAPI 5 voices along with Microsoft Speech platform.
- Multiple themes pre-installed
- The user interface has been redesigned and enhanced.
- The quality and robustness of the program has been improved.
- The organization of the grids has been reviewed: there are now 3 different types of grids: localized system grids, global system grids, user grids
- Auto-updates to check automatically for updates
- Improvement of the eye tracking integration, including for alternating strabismus.
- Apache 2 open source license.
- Code signing certificate

Version 0.9.5

- eye tracking:
  - delay to avoid deselection of a cell with quick eye movements (thanks to the suggestion of Jeff Kang)
  - new setting: autocenter (by default) -> automatically focuses the pointer at the center of a cell
- multi-user settings:
  - completely multi-user: all settings can be defined user
  - new settings: scrolling speed in google maps, browser, viewers
  - new setting: display only startup grids (startup check box defined grid by grid in the grid editor)
- main screen:
  - select user and startup grid in the main screen
  - added a ribbon bar in grids to allow exit of grids with touch screen tablets without keyboards, in grids without return button (e.g. simple yes - no grid)
- replay:

- replay screen: to view the list of sessions, the audit trail for each session and even replay the session directly withing gazespeaker (replay the sessions with the coordinates of the eye tracker stored during the session)

Version 0.9.4

- new zoom viewer to view pictures and scroll in high resolution images only with your eyes:
- different scroll viewers to view a list of pictures, such as a comic strips:
  - horizontal scroll: watch the example in the grid activities > album > scroll demo
  - vertical scroll: activities > books > spiderman (with a sample of 5 strips)
- it is now possible to view web pages in 2 modes : scrolling and clicking
- added 3 new automatic searches in the web:
  - google search
  - wikipedia
  - amazon
- added 2 new cell types: clock and calendar

Version 0.9.3

- Google maps

Version 0.9.2

1. Added Tobii eye support
2. Added alternating strabismus support
3. Corrected bugs: Settings exit and save, Microsoft Speech Platform not installed
4. Split the installer into English version and additional modules in order to reduce the size of the installer

Version 0.9.1

1. Microsoft Speech is now included in the setup package of Gazespeaker
2. In eye tracking mode, click automatically deactivates when the user doesn't look to the eye tracker (otherwise the program would click repeatedly).

3. Increase the font size in the Text writer window
4. Change icon of Gazespeaker program (round)
5. Minor corrections in the grids (Keyboard QWERTY)
6. Minor corrections in the user manual